

## State of New Hampshire DEPARTMENT OF ENVIRONMENTAL SERVICES

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September 18, 2003 **Letter of Deficiency** DSP#03-049

Mr. Mark Anderson Tory Pines Resorts 740 2<sup>nd</sup> New Hampshire Turnpike North Francestown, NH 03043

RE: Tory Pines Lagoons Dam #085.21, Francestown

Dear Mr. Anderson.

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on July 22, 2003. During this visual inspection and/or file review, the following deficiencies were observed:

On the east and south embankments there is an adequate vegetative growth, which appears to be well maintained;

- 2 Erosion of the west embankment was observed in several locations as was noted in the previous inspection. Mr. Sanderson indicated that this is a continuous maintenance issue. It was also noted that there is a limited amount of erosion protection near the top of the slope and along the downstream west embankment, which may be contributing to the continuous erosion;
- 3 Some brush/tree growth was noted along the west embankment and within the diversion/drainage ditch. It was obvious that the vegetation in the ditch is removed at least semi annually;
- 4. There were several small trees along the downstream embankment on the southeast corner of the aeration lagoons;
- 5 Brush and small trees were observed near the center of the embankment along the eastern downstream embankment of the storage lagoons;
- 6. The fence on the northwestern side of the aeration lagoon was collapsing;
  - A 12" corrugated metal drainage pipe (cmp) along the west embankment outside ditch between the aeration lagoon was clear of debris on this date. The 12" cmp was approximately 75% plugged with debris at the time of the previous inspection on December 9, 1999;
- 8 A manhole east of the lagoon system, which collects flow from the under drain was hidden by several small trees; and

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9. The crest of the embankment is gravel with some weed growth. Mr. Sanderson indicated that the weed growth is cut at least once a year.

The aeration lagoon and the storage lagoons are composed of one continuous artificial embankment and as such this system will be considered as one dam. Your Annual Dam Registration Fee (ADRF) will be reduced by \$300.00 as dam #85.22 will be combined with #85.21 and will no longer be considered as two dams. Additionally, DES believes that the above deficiencies can be corrected by the indicated schedule:

## **December 1, 2003:**

- 1. Fill the voids from the surface erosion on the west embankment with properly compacted materials/soils and then establish a hearty grass cover at least to the top of embankment slope and within the diversion/drainage ditch;
- 2. Remove the small trees along the downstream embankment on the southeast corner of the aeration lagoon;
- 3 Remove brush and small trees along the eastern downstream embankment of the storage lagoons;
- 4. Repair the collapsing fence on the northwestern side of the aeration lagoon:
- 5 Remove the brush and tree growth within 15 feet of the manhole east of the lagoon system; and
- 6. Update the operation and maintenance plan (O&M) as necessary. Please refer to the enclosed copy that was on file.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. Please call or write to our office if the repairs are completed before the aforementioned schedule. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

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If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

Dale F. Guinn, P.E.
Dam Safety Engineer

Attachments File Copy O&M plan, DB8, DB13
cc: Gretchen Rule
Town of Francestown
Certified # 1000 1670 0000 0586 2510
DFG/was/h:/safety/wendy/lod/085-21lod.doc